IN THE CLAIMS:

Claims 1-32 (Cancel)

Claim 33 (Original): A method of assembling a fuel injector, comprising:

providing a valve group subassembly including:

a tube assembly having a longitudinal axis extending between a first end and a second end, the tube assembly including an inlet tube having an inlet tube face;

a seat secured at the second end of the tube assembly, the seat defining an opening;

an armature assembly disposed within the tube assembly, the armature assembly having a closure member disposed at one end of the armature assembly and an armature portion disposed at the other end of the armature assembly, the armature assembly having an armature face;

a member biasing the armature assembly toward the seat;

a filter assembly disposed within the tube assembly;

an adjusting tube disposed within the tube assembly proximate the second end;

a non-magnetic shell extending axially along the axis and coupled at one end of the shell to the inlet tube;

a valve body coupled to the other end of the non-magnetic shell;

a lifting setting device disposed within the valve body;

a valve seat disposed within the valve body and contiguously engaging the closure member; and

a first attaching portion;

providing a coil group subassembly including:

a housing;

a bobbin disposed partially within the housing, the bobbin having at least one contact portion formed thereon;

a solenoid coil operable to display the armature assembly with respect to the seat,

the solenoid coil being electrically coupled to the contact terminals;

at least one pre-bent terminal electrically coupled to the contact portion; and

at least one overmold;

inserting the valve group subassembly into the coil group subassembly;

aligning the valve group subassembly relative to the coil group subassembly on the basis of predetermined reference points on the valve group subassembly and the coil group subassembly; and

affixing the valve group subassembly to the coil group subassembly.

Claim 34 (New): A fuel injector for use with an internal combustion engine, the fuel injector comprising:

a valve group subassembly including:

a tube assembly having a longitudinal axis extending between a first end and second end, the tube assembly including an inlet tube having an inlet tube face;

a seat secured at the second end of the tube assembly, the seat defining an opening;

an armature assembly disposed within the tube assembly, the armature assembly having a closure member disposed at one end of the armature assembly and an armature portion disposed at the other end of the armature assembly, the armature assembly the armature assembly having an armature face and includes an armature tube disposed between the armature portion and the closure member, the armature tube includes at least one elongated aperture disposed on a circumferential surface of the armature tube;

a member biasing the armature assembly toward the seat;

a filter assembly disposed within the tube assembly, the filter includes a filter assembly being coupled to the adjusting tube and forms a generally conical surface with respect to the longitudinal axis;

an adjusting tube disposed within the tube assembly proximate the second end;

a non-magnetic shell extending axially along the axis and coupled at one end of the shell to the inlet tube;

a valve body coupled to the other end of the non-magnetic shell;

a lift setting device disposed within the valve body;

a valve seat disposed within the valve body and contiguously engaging the closure member; and

a first attaching portion;

a coil group subassembly including:

a housing;

a bobbin disposed partially within the housing, the bobbin having at least one contact portion formed thereon;

a solenoid coil operable to displace the armature assembly with respect to the seat, the solenoid being electrically coupled to the at least one contact portion;

at least one pre-bent terminal being electrically coupled to the at least one contact portion;

at least one overmold;

a second attaching portion fixedly connected to the first attaching portion.

Claim 35 (New): A fuel injector for use with an internal combustion engine, the fuel injector comprising:

a valve group subassembly including:

a tube assembly having a longitudinal axis extending between a first end and second end, the tube assembly including an inlet tube having an inlet tube face;

a seat secured at the second end of the tube assembly, the seat defining an opening;

an armature assembly disposed within the tube assembly, the armature assembly having a closure member disposed at one end of the armature assembly and an armature portion disposed at the other end of the armature assembly, the armature assembly having an armature face;

a member biasing the armature assembly toward the seat;

a filter assembly disposed within the tube assembly;

an adjusting tube disposed within the tube assembly proximate the second end;

a non-magnetic shell extending axially along the axis and coupled at one end of the shell to the inlet tube;

a valve body coupled to the other end of the non-magnetic shell;

a lift setting device disposed within the valve body;

a valve seat disposed within the valve body and contiguously engaging the closure member; and

a first attaching portion;

a coil group subassembly including:

a housing;

a bobbin disposed partially within the housing, the bobbin having at least one contact portion formed thereon;

a solenoid coil operable to displace the armature assembly with respect to the seat, the solenoid being electrically coupled to the at least one contact portion;

at least one pre-bent terminal being electrically coupled to the at least one contact portion;

at least one overmold, the overmold further including:

a first insulator portion generally surrounding the second end of the inlet tube; and

a second insulator portion generally surrounding the first end of the inlet tube, the second insulator portion being bonded to the first insulator portion; and a second attaching portion fixedly connected to the first attaching portion.

Claim 36 (New): A fuel injector for use with an internal combustion engine, the fuel injector comprising:

a valve group subassembly including:

a tube assembly having a longitudinal axis extending between a first end and second end, the tube assembly including an inlet tube having an inlet tube face;

a seat secured at the second end of the tube assembly, the seat defining an opening;

an armature assembly disposed within the tube assembly, the armature assembly having a closure member disposed at one end of the armature assembly and an armature portion disposed at the other end of the armature assembly, the armature assembly having an armature face;

a member biasing the armature assembly toward the seat;

a filter assembly disposed within the tube assembly;

an adjusting tube disposed within the tube assembly proximate the second end;

a non-magnetic shell extending axially along the axis and coupled at one end of the shell to the inlet tube;

a valve body coupled to the other end of the non-magnetic shell, the valve body includes a retainer resiliently coupled to a valve body portion of the valve body, the retainer having a first portion and a second portion wherein the retainer includes at least one finger engaging a perimeter of the valve body;

a lift setting device disposed within the valve body;

a valve seat disposed within the valve body and contiguously engaging the closure member; and

a first attaching portion;

a coil group subassembly including:

a housing;

a bobbin disposed partially within the housing, the bobbin having at least one contact portion formed thereon;

a solenoid coil operable to displace the armature assembly with respect to the seat, the solenoid being electrically coupled to the at least one contact portion;

at least one pre-bent terminal being electrically coupled to the at least one contact portion;

at least one overmold; and

a second attaching portion fixedly connected to the first attaching portion.

Claim 37 (New): The fuel injector according to claim 36, wherein the at least one finger has a locking portion extending radially inward and engaging the valve body.

Claim 38 (New): The fuel injector according to claim 36, wherein the valve body portion comprises a groove, the locking portion engaging the groove.

Claim 39 (New): A fuel injector for use with an internal combustion engine, the fuel injector comprising:

a valve group subassembly including:

a tube assembly having a longitudinal axis extending between a first end and second end, the tube assembly including an inlet tube having an inlet tube face;

a seat secured at the second end of the tube assembly, the seat defining an opening;

an armature assembly disposed within the tube assembly, the armature assembly having a closure member disposed at one end of the armature assembly and an armature portion disposed at the other end of the armature assembly, the armature assembly having an armature face;

a member biasing the armature assembly toward the seat;

a filter assembly disposed within the tube assembly;

an adjusting tube disposed within the tube assembly proximate the second end;

a non-magnetic shell extending axially along the axis and coupled at one end of the shell to the inlet tube;

a valve body coupled to the other end of the non-magnetic shell;

a lift setting device disposed within the valve body, the lift setting device includes a lift sleeve;

a valve seat disposed within the valve body and contiguously engaging the closure member; and

a first attaching portion;

a coil group subassembly including:

a housing;

a bobbin disposed partially within the housing, the bobbin having at least one contact portion formed thereon;

a solenoid coil operable to displace the armature assembly with respect to the seat, the solenoid being electrically coupled to the at least one contact portion;

at least one pre-bent terminal being electrically coupled to the at least one contact portion;

at least one overmold; and

a second attaching portion fixedly connected to the first attaching portion.

Claim 40 (New): A fuel injector for use with an internal combustion engine, the fuel injector comprising:

a valve group subassembly including:

a tube assembly having a longitudinal axis extending between a first end and a second end, the tube assembly including an inlet tube having an inlet tube face;

a seat secured at the second end of the tube assembly, the seat defining an opening;

an armature assembly disposed within the tube assembly, the armature assembly having a closure member disposed at one end of the armature assembly and an armature portion disposed at the other end of the armature assembly, the armature assembly having an armature face;

a member biasing the armature assembly toward the seat;

a filter assembly disposed within the tube assembly;

an adjusting tube disposed within the tube assembly proximate the second end;

a non-magnetic shell extending axially along the axis and coupled at one end of the shell to the inlet tube;

a valve body coupled to the other end of the non-magnetic shell;

a lift setting device disposed within the valve body, the lift setting device including a crush ring;

a valve seat disposed within the valve body and contiguously engaging the closure member; and

a first attaching portion;

a coil group subassembly including:

a housing;

a bobbin disposed partially within the housing, the bobbin having at least one contact portion formed thereon;

a solenoid coil operable to displace the armature assembly with respect to the seat, the solenoid coil being electrically coupled to the at least one contact portion;

at least one pre-bent terminal being electrically coupled to the at least one contact portion;

at least one overmold; and

a second attaching portion fixedly connected to the first attaching portion.